## Message

From: Libelo, Laurence [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DA33642E6438407DAF4C35AFE870046B-LIBELO, LAURENCE]

**Sent**: 6/13/2016 11:04:20 AM

To: Krasnic, Toni [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=f94b31db1dba47189537584f7f0aaacc-tkrasnic]; Lynch, David

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=c732d9b0621e4f15a84a62c1af51a809-Lynch, David]; Washington, John

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=fdc3e8ce9f1d45c4894881ff420ca104-Washington, John]; Lindstrom, Andrew

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]; Strynar, Mark

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(FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]; Cooke, Maryt

[/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=d124f0fd0fd94a00ac79c9cc5701bcd4-Mcooke02]

Subject: PFAS cleanup costs - : Toxic nightmare - The Australian Newspaper 9 June 2016

I have been asked a couple of times recently what the cost of cleanup will be for PFASs. I don't know but here is a little info from Europe

From: Roland Weber POPs < roland.weber10@web.de>

Sent: Saturday, June 11, 2016 10:02 AM

To: Xenia Trier; Seow, Jimmy; Libelo, Laurence; 'HOLMES Nigel'; Toke Winther; Anna & Arlene (Green Science Policy

Institute)

Cc: Graham White; Balan, Simona@DTSC; Lau, Chris; Laurel Schaider; Vierke, Lena; pgrand@hsph.harvard.edu; Field,

Jennifer; Bert-Ove.Lund@kemi.se; 'Scheringer Martin'; KARHU Elina **Subject:** Re: Toxic nightmare - The Australian Newspaper 9 June 2016

Dear Xenia, dear All,

Attached a presentation I gave two weeks ago at the Chinese POPs conference on PFAS. It contains some information on cost for remediation in Germany (two airports and a site from a fire). Also it includes the reference to cost for remediation for DuPont (now Chemours) and liability. Might be interesting to gather more such information.

Best regards,

Roland

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Dr. Roland Weber

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Am 11.06.2016 um 14:07 schrieb Xenia Trier:

From: Seow, Jimmy < Jimmy.Seow@DER.wa.gov.au>

**Sent:** 10 June 2016 04:07:23

To: Xenia Trier; Libelo, Laurence; 'HOLMES Nigel'; Toke Winther; Anna & Arlene (Green Science Policy

Institute)

Cc: Graham White; Balan, Simona@DTSC; Lau, Chris; Laurel Schaider; Vierke, Lena;

pgrand@hsph.harvard.edu; Field, Jennifer; Bert-Ove.Lund@kemi.se; Roland Weber POPs; 'Scheringer

Martin'; KARHU Elina

Subject: Toxic nightmare - The Australian Newspaper 9 June 2016

Dear all

How are you all. Just got back to work today after my annual leave in Europe and Tunisia and yes I was in Istanbul too with my family 6 days before the vehicle bomb in Istanbul and was in fact in the that area. Very lucky.

Thought I share with you all the new article in The Australian which is a major newspaper of Australia.

Lena – could you kindly email me the report as stated in the news article ie Germany's Commission on Human Biomonitoring announced a PFOS risk-free blood level of five nanograms per millilitre in May

If in German its ok as I can get it translated. Many thanks

Toxic Defence nightmare fells treechangers

The Australian, Australia by Chris Ray Simon King

09 Jun 2016

General News - page 1 - 1596 words - ID 607475294 - Photo: Yes - Type: News Item - Size: 1070.00cm2

Thousands of people in 18 communities near military airfields across Australia are discovering that toxic firefighting chemicals have poisoned their land and water - and that these chemicals appear more dangerous than authorities have conceded.

Tests to detect perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), which have been linked with cancer, are under way or about to start on properties surrounding the airfields in all mainland states and territories.

The Department of Defence is holding public meetings, letterboxing homes and placing advertisements to advise residents of programs to test for the potential carcinogens.

They are slow to break down, can travel long distances in water and air, and biomagnify up through the food chain.

The 18 "priority one" sites are thought to be the most heavily polluted Defence facilities, the department says. State environmental agencies have already established contamination zones around the Williamtown RAAF base, near Newcastle in NSW, and the Army Aviation Centre at Oakey in southern Queensland.

Declaration of the zones covering an estimated 1200 households has crushed property values, wrecked businesses and left locals fearing for their health.

A new heightened alert from the US Environmental Protection Agency suggests PFOS and PFOA pose greater health risks than Australian environmental and health authorities currently accept. In findings that add to pressure on the Australian government for stronger action to combat the growing pollution scandal, the US agency has drastically lowered its safedrinking water level for the contaminants.

The new level of 0.07 micrograms per litre for both chemicals combined is far below the previous US exposure limit of 0.2 micrograms per litre for PFOS and 0.4 micrograms for PFOA.

The US EPA says the "weight of evidence" now supports the conclusion that the chemicals are human health hazards, particularly for the developing fetus and newborn. Exposure could result in testicular and kidney cancer, liver damage, immune suppression, thyroid disease and reduced fertility, it warns.

For Samantha and Jamie Kelly Continued on Page 2

Treechange becomes a nightmare from military's toxic sprays Continued from Page 1 from Sydney, their treechange to Williamtown quickly turned into a nightmare when just after moving, they received a note in their letter box calling them to a "contamination meeting".

What they learnt that September night from a multi-departmental line-up of NSW government experts was that with Samantha six months pregnant, they were now living in the "Red Zone" of pollution caused by the ongoing use of fire fighting chemicals at the Williamtown RAAF base.

"At first they tried to normalise the contaminations, saying they were in everyday products like non-stick frying pans and pop corn bags," Ms Kelly told The Australian. "But quickly it was followed with advice from the NSW Health Department that we weren't to consume the water, any eggs from our chickens, eat any meat products which had consumed the water.

"And that there were some causal effects to cancers in animals - but no studies directing it to a particular health risk in humans. I was six month pregnant - it was shocking, I'd been consuming our eggs and our vegies . it's very scary.

"We wanted a bit of land that was ours, to escape from the city; we moved here for the outdoor lifestyle, and it's been completely destroyed now." What was even more confused was the advice the Kellys were getting about breastfeeding baby William, now five months.

"They were saying it's safe enough for a baby to breastfeed but on the other hand not safe enough for me to eat - it's extremely confusing and distressing," Ms Kelly said.

Rhianna Gorfine, convener of the Williamtown and Surrounds Resident Action Group, accused the federal government of seeking to downplay the seriousness of health impacts in order to limit its legal liability for contamination.

"People here will be really angry if our authorities don't follow the American lead, lower the exposure threshold and provide blood tests for residents who want them," she said.

The Australian government's position, restated by Assistant Defence Minister Michael McCormack following the US warning on May 26, is that there is "no sufficient link" between PFOS/ PFOA and adverse human health effects.

Australian environmental authorities have generally followed the old US water guidelines in the absence of any Australian national standards.

A Defence Department human health risk assessment for Williamtown, due for release at the end of next month, will be based on the now-outdated US standard, Air Vice-Marshal Greg Evans confirmed at a media briefing on Friday.

However, the NSW Environment Protection Authority has sent the US advice to a multiagency expert panel investigating Williamtown contamination and repeated a warning to residents not to use bore water or surface water for drinking or preparing food.

An EPA spokeswoman said the authority would work with Defence to ensure Williamtown residents with water test results above 0.07 micrograms per litre were aware of the new US level.

The revised US exposure level is "potentially devastating" for all 4500 residents of Oakey, which sits on top of an expanding contamination plume, said Peter Shannon of Shine Lawyers, which represents affected locals.

Oakey's entire groundwater supply could be dangerously contaminated, he said.

Residents of the rural town 160km west of Brisbane used bore water for washing, cooking and swimming as well as irrigation and raising livestock.

"Bores which were considered of less concern are all of a sudden of high concern and Defence can no longer hide behind a supposed lack of scientific certainty about health risks," said Mr Shannon.

The Labor Party sought to make PFOS/PFOA pollution a national election issue on Saturday when it promised to establish an intergovernmental taskforce to tackle the contamination.

In pledging to develop "a nationally consistent approach" the opposition's defence spokesman Stephen Conroy also said a Labor government would fund an "initial round" of 10,000 blood tests at affected sites nationwide.

Labor's support for blood tests may boost its prospects in the newly marginal Liberal-held seat of Paterson, which covers Williamtown. The federal and NSW governments oppose blood tests, which they insist can have no diagnostic or prognostic value. However, Senator Conroy said blood tests would establish "baseline readings to allow for ongoing monitoring of contaminant exposure". Government-funded blood testing of affected residents and current and former RAAF base workers was recommended by a Senate foreign affairs, defence and trade references committee inquiry in April. The inquiry also called for property buyouts for residents and compensation to commercial fishermen hurt by a fishing ban because of contamination of the Hunter River near Williamtown base. The federal government has refused to commit to either measure. Germany's Commission on Human Biomonitoring announced a PFOS risk-free blood level of five nanograms per millilitre in May. This is far below average levels detected in the blood of a group of 75 Oakey residents tested in a since-abandoned Defence Department program last year. Oakey male residents tested were on average 17 times above the German "safe" level while the average Oakey woman was 10 times over, said Shine lawyer Rory Ross. The NSW Health Ministry has advised pregnant women in the Williamtown contamination zone not to

stop breastfeeding due to concern about PFOS and PFOA.

The US EPA says developing fetuses and breastfed infants are "particularly sensitive" to PFOS and PFOAinduced toxicity.

A spokeswoman for the federal Health Department said the national Environmental Health Standing Committee was working to set national guidelines for PFOS and PFOA in food, drinking water and surface water used for recreation.

Military air bases, civil airports and fire brigades used firefighting foams containing PFOS and PFOA from the 1970s until they were phased out several years ago. Airservices Australia says contamination is confirmed or suspected at 36 civil airfields. Interim test results at Gold Coast airport show "low" levels of PFOS/PFOA pollution, airport chief executive Marion Charlton said yesterday. Of the 18 "priority-one" military bases, testing has begun at Wagga RAAF base in the Riverina and is expected to start soon at Richmond RAAF base north of Sydney. At the naval air station HMAS Albatross on the NSW South Coast, base commander Captain Simon Bateman promised residents that testing would be "open and transparent" - and a public meeting heard how firefighters on the base used toxic foam to wash cars and dishes. In Queensland, investigations are under way at the Townsville RAAF base, which drains to the Great Barrier Reef, and will start soon around Amberley air base on the outskirts of Ipswich. Defence expects its investigation at East Sale RAAF base in Victoria to continue for 12 months. The department has letterboxed households in the outer Perth suburb of Bullsbrook advising them that bore water sampling on private land is under way close to RAAF base Pearce. Initial tests at Edinburgh RAAF base in South Australia are due to finish by the end of next month. The

Initial tests at Edinburgh RAAF base in South Australia are due to finish by the end of next month. The Northern Territory Environment Protection Authority has reported "concerning levels" of PFOS and PFOA in suburban creeks around Darwin RAAF base while preliminary testing at RAAF base Tindal near Katherine is scheduled to be completed this month.

DANGER SITES NSW: RAAF Base Williamtown HMAS Albatross RAAF Base Richmond RAAF Base Wagga Holsworthy Barracks HMAS Stirling Garden Island Queensland: Army Aviation Centre Oakey RAAF Base Townsville RAAF Base Amberley Victoria: RAAF Base East Sale Bandiana Military Area HMAS Cerberus Western Australia: RAAF Base Pearce South Australia: RAAF Base Edinburgh Northern Territory: RAAF Base Tindal RAAF Base Darwin Robertson Barracks ACT: HMAS Creswell/Jervis Bay Range Facility

## Caption Text:

BRITTA CAMPION Samantha and Jamie Kelly with baby William on contaminated property behind their home at Williamtown, north of Newcastle in NSW

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